

MONTANA AERONAUTICS COMMISSION



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DIRECTOR'S COLUMN



Charles A.
Lynch

Montana Pilot Flight Plan: In the calendar year 1961, 34,597 flight plans of all categories: VFR and IFR were filed in Montana. In 1962 over 36,000 flight plans were filed.

We have had numerous alerts because of failure to close plans in recent years. However, the greatest number of actual searches have developed out of "no flight plan" flights. The worst feature of this is that they are often several days overdue before an alert is instigated.

Conceivably, flight planning, especially for more limited pilots, would be enhanced greatly through the free use of land lines of the major telephone companies in Montana, to any Federal Aviation Agency Flight Service Station. The longest, and consequently, most costly calls necessary within the State of Montana would be from Plentywood or Scobey to Miles City. It is possible that the cost of a collect phone call to close or file a flight plan at a point not serviced by a flight service station would amount to less than 5 percent of the cost to

the State when a search is necessary due to the lack of flight planning.

The aviation operators, pilots and the Montana Aeronautics Commission, have been subjected to the greatest costs in search and rescue operations on those searches where no flight plan was filed and the "loss" was from 24 hours to 4 days "cold" before any information was requested or an alert notice was filed. These are the most costly type searches the aviation industry has been subjected to in recent years.

The Montana Aeronautics Commission has approved a plan whereby the Commission will cover the costs of filing and closing flight plans via telephone by any registered Montana pilot within the boundaries of Montana. The Commission believes that this plan will encourage the use of flight plans; be of assistance and an actual benefit to Montana pilots; enhance pilot registration within the state; and decrease the cost of search and rescue operations. This plan will work; the rules are simple; and we encourage you to use it.

MONTANA PILOT FLIGHT PLAN RULES FOR PILOTS

1. All pilots must be registered and have a current Montana registration number.
2. If not able to file by radio, pilots at non Flight Service Station points in Montana are authorized to call the nearest Flight

Service Station "Collect" to file or to close a flight plan.

3. No calls will be accepted from a point served by a Flight Service Station.

4. No restrictions are placed on Private or Commercial flights.

5. Only Montana Flight Service Stations (who hold credit cards) may accept calls.

6. Flight Service Stations will accept calls only for filing or closing flight plans.

7. Pilots (at non Flight Service Station Airports) place Collect phone calls to the nearest Flight Service Station, stating "Montana Pilot Flight Plan".

8. Please avoid calling during weather broadcast.

RULES FOR FLIGHT SERVICE STATIONS

1. All Montana Flight Service Stations have a special Montana Aeronautics Commission Telephone Credit Card.

2. Pilots (at non Flight Service Station Airports) place Collect phone call to nearest Flight Service Station; stating "Montana Pilot Flight Plan".

3. Phone operator asks Flight Service Station operator if he will accept "Collect Call" from "Pilot" at "location".

4. Flight Service Station operator accepts "if, Flight Plan call" and gets pilot's name, location, and Montana Aeronautics Commission registration number, and instructs phone operator to "charge to credit card".

5. Flight Service Station opera-

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Box 1698
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Tim Babcock, Governor
Charles A. Lynch, Director

E. B. Cogswell, Chairman
Herb Jungemann, Vice-Chairman
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R. J. (Dick) Munroe, Editor

ARTCRAFT PRINTERS

tors will record all calls on a special form supplied by the Montana Aeronautics Commission and will submit them to the Aeronautics Commission at the end of each month.

Pilots Will Meet

Herb Sammons, Cut Bank, President of the Montana Pilot's Association, announced late last month that the State Convention will be held in Helena on Friday, Saturday and Sunday, May 24th, 25th and 26th. The Helena Hangar of the MPA will act as host for the three day event. Special notices are in the process of being sent to the sixteen hangars in Montana involved in the affair.

The convention committee headed by Fred Naegele, President of the Helena Hangar, said that registration will begin at 1:00 o'clock on Friday, the 24th, in the lobby of the New Placer Hotel. A no-host mixer is scheduled for Friday evening, from 7 to 9 o'clock, on the mezzanine floor.

A special meeting of the MPA Board of Directors will be held Saturday morning, followed by business sessions Saturday afternoon. Evening plans include a cocktail party from 6:30 to 8:00; followed by the main buffet dinner from 8:00 to 10:00. Dancing and special entertainment will be featured in the Rathskeller from 9:30 until 1:00 o'clock.

A special two-day program has been arranged for pilots' wives which will include a tour of the Montana Historical Library and

galleries, as well as a detailed visit to the new art center in Reeder's Alley where a special luncheon will be held.

To round out the convention, aircraft manufacturers and component distributors will set up displays at both the Helena airport and in display rooms at the hotel. A novel aircraft dealer display quizz will be arranged for the meeting. Prizes will be awarded to winning pilots and their wives.

The concluding half-day event will be a "wake up" breakfast, western style, served on Sunday morning from 9:00 to 11:00 a.m. It will be at this event that prizes will be announced and distributed.

Officers of the state group, in addition to Herb Sammons, President, include: Russ Lukens, Great Falls, Vice-President; and Phyllis Sammons, Cut Bank, Secretary. Directors are: Winifred Lovelace, Bozeman; Tom Crum, Kalispell and John Vance, Helena.

Officers of the host Helena hangar are: Fred Naegele, President; Joe Flynn, Vice President and Clarence Sullivan, Secretary-Treasurer.

Around and Around The World

Chet Severson of Severson Air Activities has compiled the following information from the daily aircraft logs of fifteen aircraft used on the Minuteman Missile Project:

Hours flown	9,592
Landings	37,224
Gals. gas	115,104
Miles	1,438,700

or 57½ times around the world.

Pilot Jim Severson had flown 1,235 hours; made 4,730 landings and traveled 175,000 miles on the project as of December 31, 1962.

FOR SALE: PA-18 135 Lycoming, Low Time, New Cover (Glass). New Annual, excellent condition. W/Federal Hydraulic Skiis. \$5,000.00. Less Skiis \$4500.00. Markle's 228-9365 Glasgow, Mont.

FOR SALE: 1945 Piper J 3. T.T. 281 hrs. Continental 65 Mfg, 1947 T.T. 966 hrs. 291 hrs. since Top Overhaul. Recovered Dec., 1954. Metal Spars. Always hangered. Licensed until May. Plane in very good condition. Write or Contact Melvin O. Risa, Flaxville, Montana.

Coming Aviation Events

May 24-25-26

Montana Pilots Annual Convention—Helena.

June 21-22-23

Montana Pilots Association Air Tour of Montana. Details later.

June 2

Montana Flying Farmers and Ranchers Fly-In. Langhus Ranch near Big Timber. Pot Luck lunch. Crowning of new Queen.

July 14

Idaho Centennial Air Show—Boise, Idaho.

May 8-9-10, 1964

Intercollegiate Flying Clubs Annual Meet. Belgrade, Montana.

FOR SALE: Continental engine—C-85-12 for your Cessna 120 or 140, Ercoupe, etc. Completely overhauled—no time. With accessories. Outright price \$650. Cheaper than you can have yours overhauled. Contact Phil Timm, P.O. Box 516, Polson, Mont.

Pilot Registration To Be Enforced

Montana Aeronautics Commission Regulations require that all Montana pilots holding a federal certificate (student pilots included) must register their federal certificates annually with the Aeronautics Commission before flying aircraft within the state.

The Registration is due and should be accomplished by January 1st of each year.

Recent spot checks have revealed that many pilots are not abiding by this regulation.

Montana Aeronautics Commission law enforcement personnel will begin an intensive check April 15th to insure that pilots are properly registered.

If you are not registered with the Commission, pick up a registration card from any flight operator, fill it in and mail it today. Save yourself some embarrassment.

The registration fee is One Dollar (\$1.00). Monies collected are deposited in the Air Search fund and used to defray fuel and oil costs during searches.

The information required on the registration card is used by the Commission to plan and better serve aviation interests in Montana.



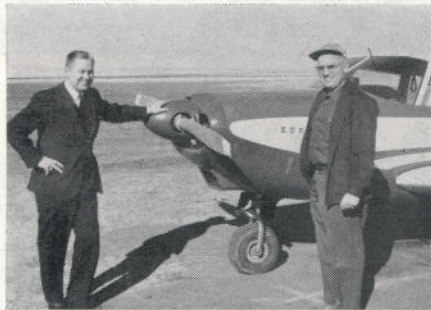
Class In Session. Sam Lewis and Joe Fallin from the FAA Academy demonstrate flight maneuvers during a ground school session.

Twenty One Instructors Complete Course

Twenty-one Montana flight instructors received a certificate of completion and Montana Flight Instructor Wings at an awards banquet March 13th in Great Falls.

The instructors attended the second Flight Instructors Course from March 4th through the 13th in Great Falls. The course is sponsored annually by the Montana Aviation Trades Association and the Montana Aeronautics Commission.

Attending the course were: Thomas S. Westall, Gallatin Flying Service at Belgrade; Robert Lonnevik, Ag Air Inc., Conrad; Raymond E. Austin, Morrison Flying Service, Helena; Donald S. Coons, Shelby Flying Service, Shelby; Earl F. Franck, Kootenai River Air Taxi, Rexford; Walter C. Hensley, Hensley Flying Service, Havre; Cliff Higgins, Montana Fish and Game Department; John L. Howard, Choteau Flying Service, Choteau; John M. Mamuzich, Pondera Flying Service, Con-



Loren Foot, Air Traffic Control Instructor visits the flight line with trainee Walt Hensley.

rad; Eugene L. Mendel, Mendel Flying Service, Malta; Albert C. Newby, Flight Line Incorporated, Belgrade; Maurice L. Owen, Johnson Flying Service, Missoula; Don Peterson, Libby Sky Ranch, Libby; Gordon Sands, Havre; Robert C. Simpson, Skycraft, Lewistown; Le Roy Stanton, Great Falls; Phillip E. Timm, Timm Flying Service, Polson; Bruce P. Toole, Lynch Flying Service, Billings; Gary G. Woltermann, Columbus Flying, Columbus; Alfred E. Hardy, Plentywood; and Edgar Obie, Obie's Flying Service, Chinook.

The twenty-one instructors underwent an intensive ground school course consisting of the latest Air Traffic Control Procedures, Meteorology, Instruments, Psychology of Training, Accident Prevention and Flight Maneuvers.

The flight section utilized both multi and single engine aircraft and gave the trainees the opportunity to practice and perfect the procedures taught in ground school.

Instructors for the course were



Trainees John Mamuzich, Maurice Owen and Tom Westall on the flight line.



1962 course graduates Joe Lavallee, Jack Archibald, Jim Kruger and Bill Tope served as flight instructors.

Joe Fallin, Neil Fox and Sam Lewis from the FAA Academy at Oklahoma City; Loren Foot, Donald Smith and Lee Ward from FAA facilities at Great Falls; Bernie Geier and Art Kurth, FAA Safety Inspectors from Montana; Harry Elser, Arthur Jacobson and Art Rozette, United States Weather Bureau, Great Falls; and Joe Lavallee, Bill Tope, Jack Archibald and Jim Kruger, Montana Flight Instructors who were graduates of the 1962 course.



Commission Chairman, E. B. Cogswell presents Al Hardy from Plentywood with his certificate and wings.

NOTICE

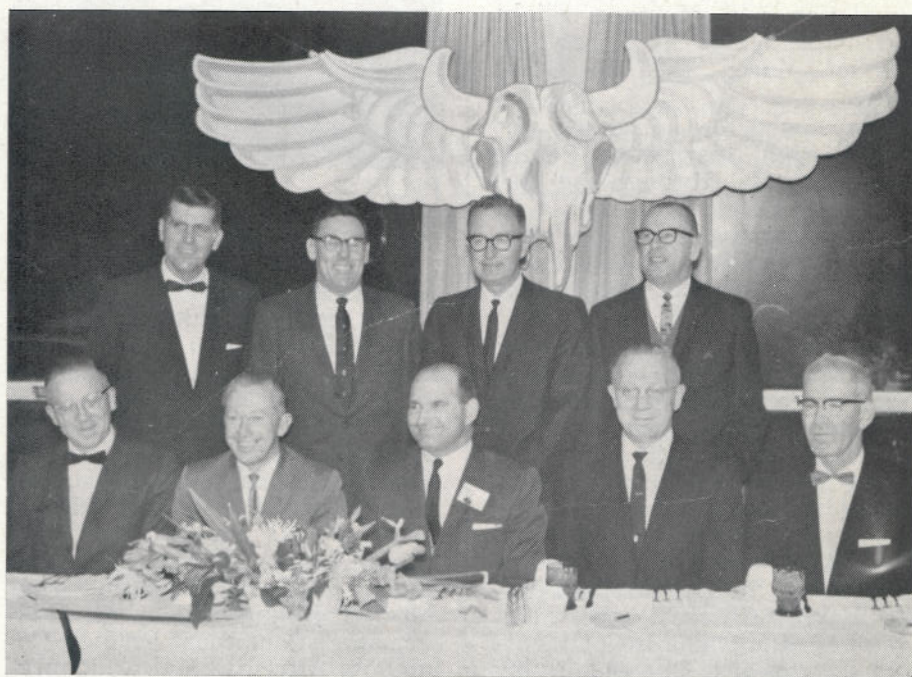
NATA AVIATION BUSINESS MANAGEMENT SEMINAR SCHEDULE CHANGE:

Oklahoma City—Seminar Dates Changed From: April 12 and 13—Huckins Hotel To: April 19 and 20—Skirvin Hotel.

Reading, Pa.: From: June 7 and 8 To: June 6 and 7.



Mrs. Walt Hensley pins on Walt's wings.



Front row left to right: Elser, Geier, Lewis, Jacobson, Aeronautics Commission Director, Lynch. Back row: Course Manager Munroe, Ward, Fallin, and Fox.



Jack Hughes, President of the Montana Aviation Trades Association and Awards Banquet Master of Ceremonies.

Air Search Coordinators Meet

Montana's volunteer Air Search Coordinators met in Helena recently to review search procedures to be used on aerial searches in Montana.

Montana Aeronautics Commission Director, Charles A. Lynch, reviewed a new Air Search Manual that was recently compiled by his office and will be used by each coordinator.

The manual covers complete procedures, a directory of key personnel, and equipment available for each of the fourteen Air Search Districts. In addition to the Air Search Coordinators, the manual will be sent to all County Sheriffs, County Civil Defense Officials, Federal Aviation Agency Flight Service Stations, and the press media.

Lynch reviewed the Air Search Organization in Montana, stressing that while an aircraft is missing the aerial search is the responsibility of the Montana Aeronautics Commission, which utilizes the fourteen volunteer coordinators and qualified Montana Search Pilots under their direction.

The Aeronautics Commission provides for payment of the fuel and oil for each aircraft authorized to search by a District Search Coordinator.

Once a downed aircraft is located it becomes the responsibility of the County Sheriff, or the military in the case of a military

aircraft, to protect the aircraft until the arrival of Federal Aviation Agency or Civil Aeronautics Board officials. During this phase of the operation the Montana Aeronautics Commission will render assistance as requested by the sheriff or officials in charge.

Air Search Coordinators attending the meeting were: Jack Archibald, Kalispell—District 2; Herb Sammons, Cut Bank—District 3; Homer Holman, Great Falls—District 4; Gordon Sands, Havre—District 5; Gene Mendel, Malta—District 7; Harold DeSilva, Plentywood—District 8; Sig Ugrin, Miles City—District 9; Tom Lynch, Billings—District 10; Al Newby, Belgrade—District 11; Jeff Morrison, Helena—District 12; Jay Mooney, Butte—District 13; Jack Hughes, Missoula—District 14.

Mr. John Vickery, Chief of the Flight Service Station at Belgrade attended and Mr. Charles Lynch and R. J. (Dick) Munroe represented the Montana Aeronautics Commission.

Consolidated Flight Information Manual Planned

Pilot flight information publications would be consolidated into a single volume under a program being considered by the Federal Aviation Agency. Under the plan, the Airman's Guide, the Flight Information Manual and other flight information publications would be replaced by a streamlined, looseleaf volume entitled, Airman's Information Manual.

The proposed publication is part of an FAA project to improve its flight information program, including charts and Notices to Airmen (NOTAMs). Although still in a tentative stage, general aviation organizations and the military services have indicated approval of the consolidation. Additional user comments are now being sought by the Agency.

The overhauled information program also would include a speeded up NOTAM system in which NOTAM summaries could be issued at least once daily and transmitted to users via a com-

bination teletype-mail distribution system.

The Airman's Information Manual would be limited to operational information needed by pilots. Desirable features of the Airman's Guide and the Flight Information Manual would be retained, but information of an administrative, legal or other non-operational nature would be eliminated.

The redesigned publication would be divided into five parts—Basic Flight Manual, Air Traffic Control Operational Procedures, Flight Data and Special Use Airspace Notices, Airport/Facility Directory, and an International Flight Information Manual.

As much enroute data as possible would be published on charts rather than in the manual according to the plan. In addition, FAA is developing a new chart especially designed for general aviation and a special study is being conducted to determine the feasibility of using the new chart series as a replacement for both WAC (World Aeronautical Chart) and Sectional charts.

In a separate step to increase service to pilots, the Agency has issued a condensed version of the Airman's Guide for Alaska which includes information applicable only to Alaskan operations. Similar Guides will be published later for Hawaii and the Caribbean-Central America areas.

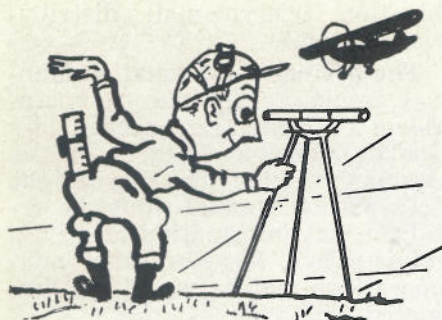
FRONTIER AIRLINES TRAFFIC DATA AT "USE IT OR LOSE IT" CITIES

JANUARY, 1963

	On Passengers	Actual Aircraft Departures	Average Passenger Loading Per Flight
Glasgow	114	52	2.19
Billings	876	143	6.12
Glendive	69	54	1.27
Great Falls	225	56	4.01
Havre	47	52	.90
Lewistown	69	38	1.81
Miles City	67	57	1.17
Sidney	127	81	1.56
Wolf Point	55	48	1.14

FEBRUARY, 1963

Billings	672	138	4.86
Glasgow	74	45	1.64
Glendive	34	48	.70
Great Falls	164	54	3.03
Havre	24	41	.58
Lewistown	50	50	1.00
Miles City	46	50	.92
Sidney	81	71	1.14
Wolf Point	74	42	1.76



Airport Division Notes

By JAMES H. MONGER
Chief, Airports Division

ANACONDA: Mr. Edmond Harrison of Anaconda, Montana, has started on a Skylodge Motel in connection with a new airport. This new Skylodge Motel facility will be located three miles from Anaconda on the Warm Springs highway. Mr. Harrison's privately owned airport will consist of a 4000' northeast/southwest runway with a large parking apron near the motel. He has stated that the airport will be open to the general public. Construction on this entire project is expected to be completed late this summer.

BID OPENING: Bids will be opened in Helena on April 15th for new general aviation VFR airports at Augusta, Boulder and Polebridge. Bids will also be opened on this date for the new administration building to be located on the Beaverhead County airport. April 15th will also be the bid opening day for the West Yellowstone airport. It is hoped that the contract can be awarded in April so that construction can begin in early May.

RICHEY: A site investigation will be conducted in the immediate vicinity of the town of Richey in Dawson County. The Dawson County Commissioners have agreed to sponsor a General Aviation Utility Airport.

BROADUS-WIBAUX: County Commissioners at the locations of Wibaux and Broadus have agreed to sponsor General Aviation Utility Airports. Site investigations have been conducted and the office of the MAC has met with a great deal of difficulty in acquiring the necessary property for the airports. These projects may have to be delayed indefinitely because of lack of local support

and land acquisition difficulties. Any assistance that can be offered by pilots in the vicinities will certainly be appreciated.

TURF STRIP MAINTENANCE: During 1962, quite a few Airport Managers found their airports comparatively rough with summer rolling ineffective in combating this trouble. The winter freeze and thawing heaves the grass plants out of the soil and leaves an irregular surface. The best time to eliminate this trouble is in the spring when the rolling smooths the surface and depresses the heaved plants back in the soil where the roots will develop more rapidly and summer wind erosion is reduced to a minimum.

This rolling should be done as early in the spring as it is feasible to operate the rollers, but not before the end of the period when freezing is likely to recur and result in further heaving. Satisfactory results can be obtained from rolling when the soil is moderately moist but not when it is wet and soggy. Rolling should be accomplished if possible, after repairing, refertilizing and reseeding operations. This rolling may be done with rollers of the type used on farms or golf courses. It is not desirable to use heavy rollers commonly used in road work. Sandy soils can be compacted satisfactorily using flat wheels or corrugated rollers weighing 60 to 90 pounds per lineal foot, but most clay soils require a heavier roller such as a corrugated pipe filled with concrete. Cultipacker, pneumatic, or similar equipment. Remember, the spring rolling will not solve your maintenance problem alone. It will be necessary for you to continue rolling after a heavy spring rain or early summer rain or after a large amount of traffic has turned up rocks. Properly scheduled rolling on your turf airstrips will not only improve your runway surface but it will also decrease the number of times you will have to mow during the summer. If you feel that it will be impossible to push in the grass plants because the heaving has been too severe, then it may be advisable for you to blade off the entire area with a motor patrol and then reseed and fertilize. When blading off the

clumps from the surface, be sure that your motor patrol blade just rests on the level surface of the ground and does not cut into the top layer of soil. By doing this, you will remove only the high grass plant stumps and you will leave a great deal of grass to spread out.

FEDERAL AVIATION AGENCY INSPECTION ITINERARY

Airport	April	May	June
Billings	1-8-15-22-29	13-20-27	17-24
(Logan Field)			
Bozeman	18	16	20
(Gallatin Field)			
Culbertson		15	
Glasgow			19
Glendive		22	
Great Falls	4	9	6
(International)			
Lewistown	24		
Miles City			26
Missoula	25	23	27

Aviation Education Notebook

Mary Jo Janey

Last time mention was made of the fact that newer textbooks were taking into account the many considerations of aviation and space studies in their content. However, many schools are still using social studies and science texts with a copyright date up to ten years old. How much has happened in ten years to change the world scene! It becomes imperative for teachers using these "obsolete" books to supplement with current news media to fill in the gaps, and to evaluate carefully those parts of the books which are misleading in the light of today's world. I think of one seventh grade social studies text which is in use in one of Montana's schools, copywritten in 1952. The chapter dealing with modern transportation pictured commercial airlines using war-time models of airliners. The air travel and use statistics given were accurate—in 1952, but this is eleven years later, a period which has been phenomenal change, not only in the types of airplanes used but in the numbers of people using them.

When we speak of obsolescence, we don't necessarily mean that all the older books should be thrown out and replaced with new ones. Our schools simply couldn't afford to do this. Indeed, at the

Did You Know That . . . Approximately 11 per cent of the airline passengers reserving seats never show up for their flights.

Agriculture Aircraft Registration Procedures

Regulation of the Montana Aeronautics Commission require that all aircraft equipped for the distribution of chemicals, seeds or baits be registered annually with the Aeronautics Commission.

Requirements for registration of each agriculture aircraft are:

1. Aircraft will currently be covered by Public Liability and Property Damage insurance in the amount of \$25,000/\$50,000 and \$25,000.

2. Certificate of Waiver or Authorization Form FAA 663.

3. Registration Certificate FAA Form ACA 500 will be in order and in the Aircraft.

4. Certificate of Air Worthiness FAA Form ACA 1362 will be current and in the Aircraft.

5. Current weight and balance as required will be in the Aircraft.

6. Operations Limitations FAA Form 309 or FAA Approved Manual will be in the Aircraft.

Acceptable evidence of insurance will be a letter from an authorized insurance company giving dates of coverage, amounts thereof, listing of aircraft covered and the owner's name. The insurance company must include a statement that it will promptly notify the Montana Aeronautics Commission of any change in or cancellation of the policy. The above letter must be in the office of the Aeronautics Commission before an agriculture plate can be issued.

After receiving the plate the operator must attach it to the appropriate aircraft.

Operators owning aircraft equipped for spraying but not meeting the six requirements listed are in violation.

Did You Know That . . . The Navy's first aerial reconnaissance mission occurred during the Civil War when a Union navy boat sent a man aloft in a captive balloon to watch for blockade runners on the lower Potomac River.

Two Aviation Bills Passed

Two bills of interest to the aviation industry in Montana were passed by the legislature.

HOUSE BILL No. 326

Introduced by Hibbard, Etchart and Asbjornson:

A Bill for an act entitled: "An Act to amend section 59-801 and Section 59-802, R. C. M., 1947, relating to mileage of public officers and providing mileage payments at the rate of twelve cents (\$.12) per air mile for legislators and other state employees when flying an airplane on official business."

Signed by the Governor

HOUSE BILL No. 175

Introduced by Lucas, Etchart, Wayrynen, Asbjornson:

A Bill for an act entitled: "An Act to amend section 1-603, revised codes of Montana, 1947, as amended by Chapter 16 of the session laws of the Thirty-First Legislative Assembly 1949, relating to the operation of aircraft in a careless or reckless manner, by providing that the prohibition against operation of an aircraft in such manner as to endanger the life or property of others applies specifically to the pilot of such aircraft."

Signed by the Governor

If more information is required, please contact the Montana Aeronautics Commission.

MONTANA TOWER-CONTROLLED AIRPORT OPERATIONS FOR FEBRUARY

	Total Operation	Instrument Operation
Billings	6553	531
Great Falls	5236	1150
Missoula	2371	196
Helena	1628	74

FOR SALE: Cessna 180, 1955 model. Completely overhauled engine-zero time. Brand new McCauley prop. New Paint, Copper & Cream. Recently refinished interior. \$7,500.00. Contact Phil Timm, P. O. Box 516; Polson, Montana.

FOR SALE: Beech 35 Bonanza, full gyros, paint, beacon, aux. tank, two radios, new tires and battery, zero engine since major. \$6,800.00. Trades Considered. Box 804; Bozeman, Mont. Phone 587-7198. Art Stapleton.

FOR SALE: 1946 Ercoupe 415C. 370 hrs. on Major-Aug. Periodic. VHF radio. Metal prop spinner. Good tires. Tinted windshield. \$2,360.00. P. O. Box 491. Livingston Flying Service. Phone 222-0298. Paul Tilleman.

Congratulations ! !



CERTIFICATES ISSUED RECENTLY TO MONTANA FLYERS

Carlson, Ernest W. Choteau—Student
Winn, Bennis R., Butte—Private
Kiesling, Victor J., Jr., Helena—Student
Gifford, O. D., Chester—Private
Jensen, Harold, Chester—Student
Caradine, John Henry, Malmstrom AFB—Student
Carson, Peter A., Bozeman—Private
Fellows, Thomas W., Bozeman—Private
Marchildon, Ralph B., Missoula—Private
Kraus, David J., Great Falls—Student
Cockrell, Richard L., Galata—Student
Dawson, James H., Belt—Private
Dion, Donald J., Great Falls—Private
Richards, Stacy S., Great Falls—Private
Lewis, William B., Great Falls—Student
Hebbelman, John H., Chinook—Private
Squires, Ronald C., Great Falls—Student
Young, Terrence M., Conrad—Student
Lewis, Gary A., Great Falls—Student
Carlson, Clarence A., Choteau—Student
Christen, Mark L., Malmstrom AFB—Student
Hale, Edward R., Missoula—Student
Tilleman, Joyce Daniel, Livingston—Student
Ryen, Donald R., Belgrade—Student
Fulton, Charles E., Bozeman—Private
Naranche, Daniel J., Butte—Private
Gurnett, Edward C., Livingston—Student
Uphill, Thomas R., Missoula—Senior Parachute Rigger
Haug, Henry W., Clyde Park—Student

time a textbook comes off the press, it is obsolete, so it would be impossible to keep up to date even if new texts were purchased every single year!

The only way up-to-date information can be made a continuing part of the content is by giving current affairs a planned, continuing place in daily classroom activities. Different teachers find different ways of doing this. Some may have a volunteer committee to carry the responsibility of collecting new items and reporting to the class on significant aviation happenings. Reports, panel discussions, films, bulletin board displays and scrapbooks can be used in varying degree.

Certainly television is important in children's lives today. By watching TV guides, weekly program listings and other sources, children can be alerted to watch for special TV events. Daily radio newscasts also offer much in the way of information.

Any classroom trying to achieve a current events program of worth can hardly do so without globes and maps handy for locating sites and routes. An added bonus to well-established habits of using maps and globes is a developing knowledge of geography, which is frequently neglected in the social studies program. Without this knowledge children are unable to gain an understanding of the peoples and places of the world and how they are affected by aviation developments. And, after all, isn't a comprehensive international understanding necessary in a time when people are much closer to each other as a result of rapid flight? And when orbiting satellites make possible TV and other communications from different countries instantly?

The endless stream of "firsts" in space exploration has captured priority interest in our children. This interest, properly channelled, can motivate the study of science and other subjects to understand important concepts behind the news. For instance, immediately after John Glenn's space flight, a tremendous flow of news was aimed at educating the public as to how a satellite is orbited, what provisions are made for the passenger's safety, where these ve-

hicles are built, and who builds them. Children absorb this information because they are vitally interested. They seem to sense that their world is vastly different and that this knowledge is essential to them.

In my office I have materials which outline to a teacher how to integrate aviation and space concepts into their classrooms. These materials are especially for those teachers who feel a lack of confidence in teaching aerospace. For those teachers who already use aerospace materials, films, units, and recordings are being added constantly. For information, write to Aviation Education Supervisor, Department of Public Instruction, Helena, Montana.

Some of these materials are listed below; all are free to Montana teachers.

Aviation Units for Primary Grades

Aviation Units for Intermediate Grades

How to Introduce the Study of Space to all Grade Levels: K-6

Earth and Space Guide for Elementary Teachers

How to Develop a Teaching Unit on Rockets and Space

Thus far we have talked mostly about elementary aviation education.

Next time we will take a look at secondary schools in aviation education.

Attention Pilots

The Chief of the Division of the Federal Aviation Agency has asked State Directors of Aeronautics to request that all airmen check the address as shown on their certificates and to notify the Chief, Airman; Certification Branch, FS-960; Federal Aviation Agency; 621 N. Robinson Avenue; Oklahoma City, Oklahoma, promptly if the address is incorrect.

April 30, 1916—World altitude record broken at Newport News by Victor Carlstrom in a twin-engined "JN" Curtiss when he reaches 16,500 feet.

April 6, 1914—Glenn L. Martin makes new altitude record of 14,200 feet.

Publication Available From M.A.C.

The following publication are available from the Montana Aeronautics Commission:

Aircraft Powerplant Handbook, CAA Technical Manual 107—\$1.50.

Flight Instructor's Handbook, CAA Technical Manual 105—\$1.50.

Pilots Radio Handbook, FAA—75c.

Pilots Weather Handbook, CAA Technical Manual 104—\$1.50.

Personal Aircraft Inspection Manual, CAA Technical Manual 101—55c.

Radio & Instrument Flying—Zweng—\$5.00.

Community Planning for Air Transportation NASAO—\$2.00.

AOPA's 180 Degree Rating — AOPA Foundation—Free.

Commercial Pilot Examination Guide, CAA—75c.

Private Pilot Examination Guide, CAA—75c.

Flight Instructor Examination Guide, FAA—40c.

Exam Information for Aircraft Dispatchers, CAA—20c.

Instrument Pilot Examination Guide, FAA—30c.

Montana Airport Directory, MAC—\$2.00.

Montana Aeronautical Chart, MAC—\$1.00.

Private Pilot Flight Test Guide, FAA—10c.

Ground Instructor Link Rating, FAA—15c.

Commercial Pilot Flight Test Guide, FAA—15c.

Multi-Engine Class or Type Rating Flight Test Guide, FAA—10c.

Weather Services for Pilots—Weather Bureau—10c.

Facts of Flight, CAA—50c.

Path of Flight, CAA—60c.

Rules of Flight, FAA—55c.

Airport Drainage, FAA—30c.

Administration Buildings for Airports—25c.

Aviation Fixed Base Operation, Small Business Administration—25c.

Plane Sense, FAA—Free.

Heliport Design Guide, FAA—30c.

Small Airports, FAA—20c.

Terrain Flying, FAA—40c.

Cloud Chart, MAC—Free.

Forecast the Weather, MAC—Free.

Recommendations for Municipal and County Airport Administration—Free.

Montana Flight Instructors Refresher Course, MAC—Free.

Airport Development Policy and Construction Report, MAC—Free.

Montana Aeronautics Commission Annual Report—1962, MAC—Free.

F.A.R. Part 61, Certifications: Pilots and Flight Instructors, FAA—30c.

F.A.R. Part 1, Definitions and Abbreviation, FAA—25c.

F.A.R. Part 65, Certification: Airmen Other Than Flight Crew—20c.

F.A.R. Part 73, Special Use Air Space, FAA—15c.

Make check or money order payable to the Montana Aeronautics Commission.

Bright, Jack V., Belgrade— Commercial	Hagbom, Laurence D., Winston— Student	Huffman, Walter E., Big Timber —Basic Ground Instructor
Ren, Ted Worth, Great Falls— Student	Peterson, Wm. L., Jr., Dell— Private	MacDonald, James F., Laurel— Flight Instructor
Barr, Duane L., Bozeman— Student	Jonkel, Charles J., Whitefish— Private	Calhoun, Obie D., Lewistown— ATR & Flight Instructor
Lee, Roal J., Malmstrom-AMEL & Boeing 377 Added Com. Instrument	Barney, Wayne H., Cut Bank— Student	Marsh, Leland K., Rapelje— Private
Micknak, Donald, Missoula— Airframe Mechanic	Kraft, Robert R., Cut Bank— Student	Lalonde, Eugene A., Sidney— Student
Cornell, Craig R., Dillon—Private	Olson, Roger L., Three Forks— Student	Asay, Donald R., Cody, Wyoming —Student
Bowman, Donald L., Belt— Private	Hunnewell, Richard E., Chester— Student	Petrik, Jerome T., Sidney— Student
Molander, Richard E., Butte— Student	Geyer, Gary A., Big Sandy— Student	Montalban, Joseph V., Billings— Student
Tucker, Richard G., Dillon— Student	Randall, Lee J., Butte—Student	McWilliams, Frances L., Cohagen —Student
Stewart, William Chester, Hamilton—Student	Stewart, Richard F., Great Falls —Student	Petrik, Paul E., Sidney—Student
Alspaugh, Mark H., Great Falls— Private	Tilleman, Bert H., Chinook—	Schweitzer, Leroy M., Bozeman— Flight Instructor
Fisher, Wesley J., Browning— Private	Patzer, Ronald L., Helena— Powerplant Mechanic	Jackson, Floyd N., Cody, Wyom- ing—Student
Hennessey, Robert S., Malmstrom AFB—Private	Hebbelman, John H., Chinook— Student	Noland, Jerry Lynn, Greybull— C-Rotor-Helicopt.
Robertson, Benjamin E., Great Falls—Private	Croff, Charles D., Belt—Student	Davis, Bob F., Lewistown— Student
O'Hair, Jerry P., Livingston— Student	Buckhouse, Kathleen C., Great Falls—Student	Herman, Ronald D., Sidney— Student
Reed, John C., Bozeman—Student	Klaue, James D., Vaughn— Private	Bilotta, George P., Colorado—Gr. Instructor, Link
Friez, Ronald Ray, Forsyth— Student	Reiss, Peter T. (Missoula Aerial) Hudson, N. Y.—Student	Holland, Swend R., Lewistown— Student
Hudson, Gary L., Roundup— Student	Langohr, Don M., Bozeman— Student	Stanford, Edward J., Culbertson —Student
Hamilton, Jimmie D., Great Falls —Student	McLaughlin, Ross W., Great Falls —Student	Holler, Roger D., Cody, Wyo.— Student
Swainson, John W., Livingston— Student	Lanning, David P., Polson— Private	Gray, Andrew Wood, Great Falls —Flight Instructor
ZurMuehlen, Dorothy R., Helena —Student	Works, Marvin Lee, Big Sandy— Private	Bublitz, Willis E., Cody, Wyo.— Commercial
Wilson, Richard A., Choteau— Student	Bourgeois, Dale E., Livingston —Student	Stinchcomb, Harold G., Lewistown—Student
Andersen, Robert W., Butte— Private	Stephens, Michael J., Dutton— Student	Welch, Louis J., Cowley, Wyo.— Private
Clark, Robert C., Havre— Student	Sharpe, Thomas R., Livingston— Student	Latka, Paul J., Glendive—Student
Klapan, George D., Butte— Student	Walden, Russel R., Great Falls— Student	Crossley, Robert, Missoula— Instrument
Britton, William E., Kalispell— Student	Schiedel, Gerald F., Great Falls— Student	Fagg, Harrison G., Billings— Private
Steele, Volney W., Bozeman— Student	Keim, Vern R., Billings—Student	Grancher, Thomas A., Billings— Private
Canty, Dave, Butte—Student	Stanton, Leroy W., Great Falls— MEL on Commercial	Kukowski, Edmund F., Beach, North Dakota—Private
Bowman, Donald L., Belt— Student	Cernohlavek, William R., Billings —Private	Herrod, Thomas E., Billings— Lockheed PV-2
Nickelson, Albert F., Livingston —Student	Lindquist, Jay B., North Dakota —Commercial	Conatser, Charles W., Lavina— Student
Dunlop, William E., Helena— Powerplant mechanic	Kotaki, John Masao, Glasgow— Commercial	Wayman, John A., Billings— Private
Duffield, Warren P., Billings— Powerplant mechanic	Tomalino, Robert L., Glendive— Airframe Mechanic	Witt, Jackie D., Sidney—Student
Ecton, Zales N. Jr., Manhattan— Student	Petersen, Raymond G., Plentywood—Student	Weiser, John W., Sidney— Student
	Kampfe, Frank D., Red Lodge— Student	Tilstra, John R., Worland, Wyoming—Student

Cook, Robert C., Bridger—Student
 Welch, Louis J., Cowley, Wyo.—Student
 Sikora, Theodore A., Billings—Student
 Martin, Charles R., Glasgow AFB—Instrument
 Young, Albert M., Great Falls—Student
 Halseide, Curtis, Culbertson—Student
 Adams, Samuel H., Glasgow—Private
 Kunkle, Rudolph A., Glendive—Student
 Gray, Robert J., Ismay—Student
 Harris, Harold N., Murray, Utah—Student
 Nish, Robert M., Judith Gap—Student
 Brewer, Darrell M., Roundup—Student
 Mager, Jay F., Two Dot—Student
 King, Ervin E., Billings—Student
 Morris, John W., Biddle—Private
 Schweitzer, Larry L., Bozeman—Private
 Moen, Kenneth O., Sidney—Student
 Rubin, Harold A., Flaxville—Student
 Ligon, Wayne D., Lambert—Student
 Elliot, Ian A., Miles City—Student
 Crider, Joseph M., Sidney—Private
 Braswell, Louis V., Billings—Private
 Dunlap, William M., Billings—MEL on Commercial
 Porter, Albert M., Billings—Commercial
 Lich, Lyle, Custer—Student
 Cook, James E., Billings—Private
 Christianson, G. A., North Dakota—Private
 Swanson, Arthur C., Glasgow—Student
 Scott, George G., Outlook—Private
 Nelson, Arnold E., Havre—Student
 Spevacek, Robert E., Geraldine—Student
 Clayton, George A., Bozeman—Student
 Burley, Donald C., Belt—P ASEL exchanged
 Earl, Wesley D., Havre—Student
 Beck, Marvin C., Deer Lodge—AMEL added to P ASEL

Robinson, Barry W., Bigfork—Student
 Walker, Scott L., Anaconda—Student
 Briggs, George H., Dell-Com. ASEL
 Evans, Jack H., Deer Lodge—P ASEL exchanged
 McDonald, Thomas E., Missoula—P ASEL
 Weed, Paul Hallam, Bozeman—Com. ASEL
 Brown, Kenneth McLean, Jr.—Comm.
 Popp, Alec DeWayne—Student
 Chamberlin, Alvin W., MultiEng. on Comm.
 Beck, Arden Lyn—Student
 Whitman, Robert Lee—Student
 Harris, Kent Jeffrey—Student
 Benson, Carol Overn—Student
 Strickfaden, William Keil—Student
 Kerr, Arthur Sterling—Student
 Chandler, Andrew Jackson—Commercial
 Halo, Oliver Lyman—Student
 Kerr, Arthus S.—Private
 Nash, Donald O.—Private, Blue Seal
 Coil, Fred Lewis—Student
 White, Kenneth Hugh—Lockheed PV-1 on Comm.
 Dunlap, William Max, Instr. on Comm.
 Weast, Vernon Edward—Student
 Downing, Gerald Hiram—Student
 Nelson, Roger A.—Comm.

Airway Produces Slide Film

Ann Arbor, Mich.—Airway Underwriters has produced a 10 minute slide film on the subject of Aircraft Liability. Titled "Flying With Coverage"; the film tells the story of the legal difficulties and pitfalls faced by aircraft owners and pilots. Development of the law of negligence as applied to aviation is traced from the early cases involving balloon pilots down to the present day.

Robert Crawford, president of Airway Underwriters, announced that the film is available for showing to pilot organizations, CAP units, flying clubs, ground school classes and other interested groups without charge. Persons desiring to schedule the film are invited to address a card or letter to Dept. 103, Airway Underwriters, Ann Arbor, Michigan.

FOR SALE: An attractive Silver & Red Taylorcraft L-2 with low hours (600 hr. T.T.). Wings recovered Sept. 1958 and fuselage recovered 1961. Large numbers. Large tires with swivel tail wheel. Engine (Continental 65) overhauled 150 hours ago. Brown & Red interior. Very clean throughout. Always hangared. \$1,400.00. Bill Woods; Inverness, Mont. Phone 355-2721.

FOR SALE: Luscombe 8E. \$1,650.00 as is or \$2,250.00 with fresh major and license. Contact Jack Norman, Havre, Montana.

USE OF POWER

A recent engine operation information letter from a major aircraft power plant manufacturer again stresses the use of full power rather than partial power during takeoff. The letter states "in using power in this manner, we stress attaining height above ground as soon as possible after takeoff. In case of engine failure, we are far better off to have our takeoff horsepower tied up in height rather than speed. Since drag increases as the square of the velocity, an inoperative engine will cause far more trouble if speed is excessively high. As an example, the drag at 141 knots is twice as much as 100 knots, and the drag at 200 knots is four times as much as 100 knots.

In the event of an emergency, altitude can be traded for energy. In other words, extra air speed is not always money in the bank." Even though this information is for the operators of heavy multi-engine equipment, the same principles apply in the operation of both light twin engine and single engine aircraft.

Flight Safety Foundation

April 18, 1910 — A seaplane called the "Flying Fish," developed by W. Starling Burgess and Greeley S. Curtis, successfully flies at Plum Island, Mass.

April 3, 1912 — C. P. Rogers killed in Wright biplane at Long Beach, California.

FOR SALE: 1955 Piper Tri-Pacer 150; 510 hrs. T.T. on aircraft and engine; full panel, new battery; Narco super-homer, low frequency. Extremely clean, excellent condition, never damaged, always hangared. Licensed until August 1963. Price \$4,800.00. Lewis C. Janssen-Janssen Bros., Coalwood, Montana.

Comments On Need For New Rules At Uncontrolled Airports

The Federal Aviation Agency is considering a proposal to establish nation-wide standardized traffic pattern flight procedures at airports where there are no towers to furnish airport traffic control service.

Approximately 6,500 of the more than 7,000 airports in the United States have no towers.

Evidence exists on the need to establish standardized traffic pattern flight procedures at uncontrolled airports. Existing rules concerning operations at uncontrolled airports (CAR 60.18c), however, cover only communications procedures, direction of turns when landing, and compliance with local traffic patterns upon take-off.

The adequacy of these provisions alone to assure safety is something the FAA wants to determine. Standardizing traffic pattern flight procedures would introduce additional provisions that could present fairly complex problems. Some of the added factors that would have to be considered under standardized procedures are mandatory use of such traffic pattern components as upwind, crosswind, downwind and base legs and final approach; procedures for entering the traffic pattern; altitudes and speeds to be maintained in the traffic pattern; wind components; use of specific runways; enroute operations; straight-in approaches; and right-of-way.

Opinions and recommendations on most of these complex factors vary considerably and pose serious problems in determining an appropriate course of action.

Rules providing for standardized traffic pattern procedures at airports equipped with Federally-operated towers have been in effect since December 26, 1961. Such rules are essential for the safe handling of the relatively heavier volumes of traffic at these busier airports.

Today, 272 airports have FAA-operated towers. To qualify for an FAA tower, an airport must have a minimum of 24,000 itinerant aircraft operations in a 12 month period.

There are approximately 250 airfields in the country with military towers.

Comments on the Advance Notice (Draft Release 63-8; Reg. Docket No. 1620) should be submitted in duplicate to FAA's Docket Section, 1711 New York Avenue, N.W., Washington 25, D. C. before May 2, 1963.

Al Ward Flying Scholarship Contest

Requirements:

Contestants

1. Open to all boys and girls who have not reached their nineteenth birthday by September 1, 1963.

2. Contestants' parents must be active or associate members of International Flying Farmers, Inc., or actively engaged in farming or interested solely in agriculture.

3. Contestant must be unmarried.

4. Previous national winners are not eligible to compete.

To Enter

Mail entry and photograph to the president of Flying Farmers Organization of the state in which you reside. (In Montana it is Ermal Hansen, Fort Benton, Montana).

Awards

First place, 18 hours dual instruction.

Second place, 15 hours dual instruction.

Third place, 12 hours dual instruction.

Fourth place, 9 hours dual instruction.

Winners choose their own instructors.

Entry

1. Story form essay written after research in the field of aviation.

2. Subject: "Aviation — From beginning of history of Aviation to 1903."

3. Essay must be of not more than 500 words.

4. Entry must be typewritten.

5. Entry must first be submitted to the state or province chapter of the Flying Farmer Association in which the contestant resides.

6. Each state or province will

hold a separate contest and will judge all entries submitted to their state or province chapter.

7. One winning entry from each state or province chapter will be forwarded to International Flying Farmers, Inc., and must be accompanied by a recent medical certificate, a photograph of the contestant, and three copies of the winning entries.

8. The state or province winning essays must be received at the International headquarters in Wichita by June 15, 1963.

9. National judging will be held at least thirty (30) days prior to the International Convention and winners will be notified as soon as possible.

10. A national winner must attend The International Flying Farmers Convention at Rapid City, South Dakota, August 4-9, 1963.

Suggested References:

A History of Flying. C. H.

Gibbs-Smith

How We Invented the Airplane

The Birth of Aviation

Encyclopedia Britannica

Colliers Encyclopedia

Frontiers of Flight. Geo. Wm.

Gray

For further information write to: International Flying Farmers, Inc., Municipal Airport, Wichita 9, Kansas or Mr. Ermal Hansen—Fort Benton, Montana.

Revision of Requirements For Instrument Rating Contemplated

Private pilots would no longer have to meet the flight time requirements for a commercial pilot certificate in order to qualify for an instrument rating under rule changes proposed by the Federal Aviation Agency.

Applicants for an instrument rating, however, still would be required to log a total of 40 hours of instrument time. They also would have to pass current practical and written examinations which would insure that they meet minimum levels of skill and knowledge.

The FAA also wants to make better use of the trainee's time while he is logging his 40 hours of instrument time. The Agency proposes to increase the number

of hours of instrument flight instruction from 10 to 15 and require the performance of certain additional flight maneuvers and instrument approach procedures, including a cross-country trip of at least 200 miles under an approved IFR flight plan. Use of VHF navigational facilities for at least one leg of the cross-country trip would be required.

The present requirement that applicants for an instrument ticket meet the flight time requirements for a commercial pilot certificate was established at a time when many private pilots were restricted in their flying activity because of the operational limitations of most general aviation aircraft. Today, however, many general aviation aircraft have capabilities that equal or exceed those of some old transport type aircraft and compare favorably with several of the current transport types. This has per-

mitted the modern private pilot to acquire a depth of experience not available to his predecessor.

Moreover, there has been a general upgrading of the requirements for a private pilot certificate. For example, the FAA now requires all newly certificated pilots to have at least limited instrument flight capability. There also is an Agency program (the Blue Seal program) to encourage all private pilots to attain this capability.

In view of these considerations, the FAA believes private pilots today are better able to qualify for an instrument rating than in the past and it is no longer necessary to require them to meet the flight time requirements for a commercial certificate.

Comments on the proposal (Draft Release 63-6) will be accepted at the Dockets Section, Federal Aviation Agency, until April 29.

FOR SALE: Piper PA-14 Family Crusier, 135 H.P. 0290-D2 Lycoming, Metal prop and spinner, Fiber Glass covered and new interior in 1960; Sliding front seat, cabin speaker, VHF trans. and receiver with OMNI, O.S.A.T., T.B. Sens. AIT, Str. Tail Wheel, 400 S.M.O.H. 160 S.T.O.H. 1977 A.F.T.T. Relicensed to 11/63. Richard Hilton, Route 1, Dillon, Montana. Phone 683-2459, Evenings.

FOR SALE: 1946 Cessna 120. New Seconite Wings; New Windshield; New periodic; New VHF radio; Wide doorposts; Good tires and metal prop. \$2,490.00. P. O. Box 491. Livingston Flying Service. Ph. 222-2098.

FOR SALE: Cessna 180, 1953; 225 hrs. SMOH; Mark II Radio; New Rubber; New Paint '62; Runs real well. \$6,250. Phone 792-8809. Don Harrington, Pepsi-Cola Bottling Co., Butte.

April 18, 1942—Lt. Col. James H. Doolittle and his squadron of 16 B-25 "Mitchell" bombers carry out the first bombing raid against the Japanese mainland in a daring flight from the aircraft carrier Hornet.

MEMBER

NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—"To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform aviation laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."



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